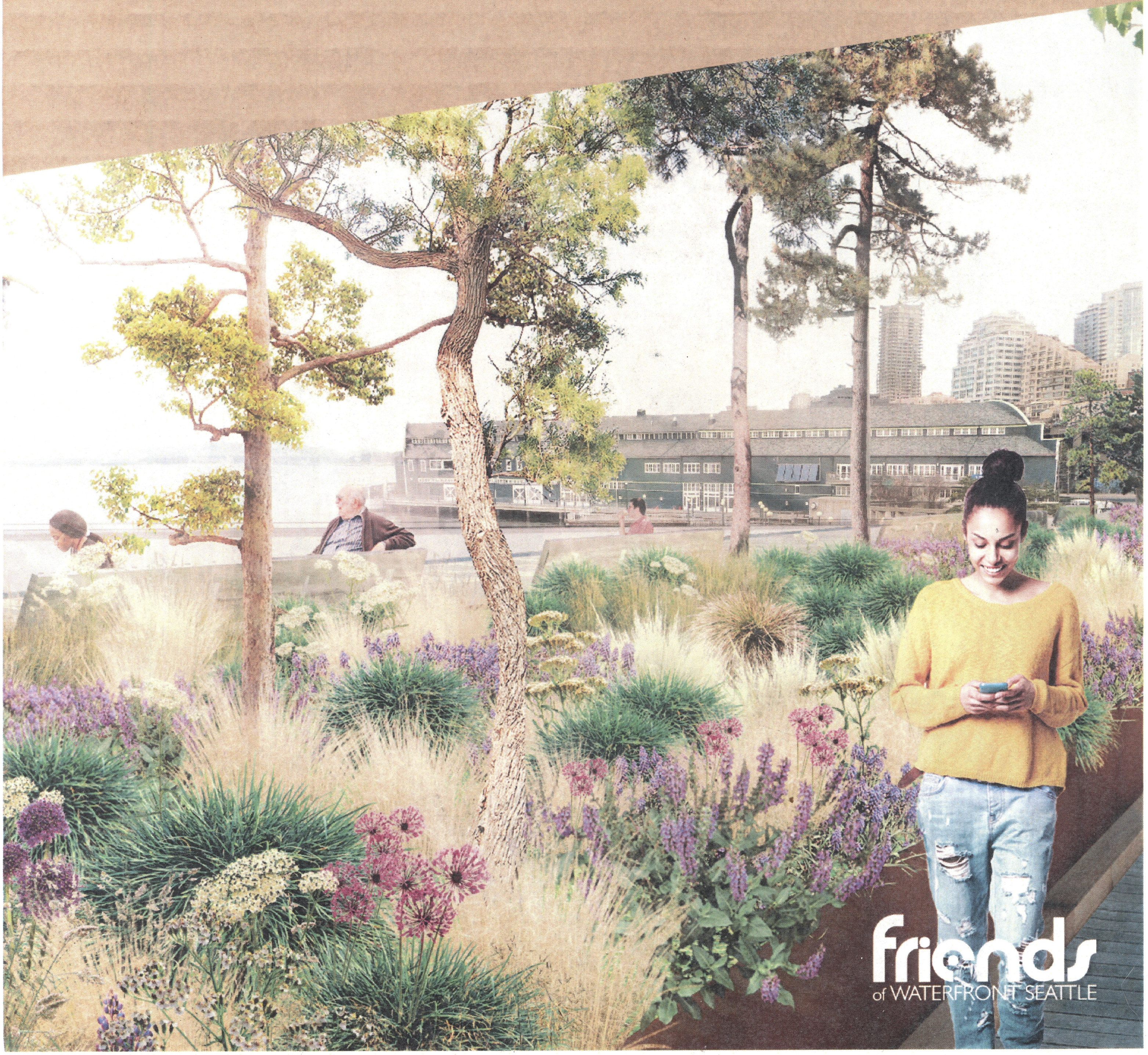
DESIGNED FOR THE FUTURE

A SUSTAINABLE WATERFRONT PARK

AN OVERVIEW OF THE SUSTAINABLE DESIGN ELEMENTS OF WATERFRONT SEATTLE



friends
of WATERFRONT SEATTLE

SUSTAINABILITY

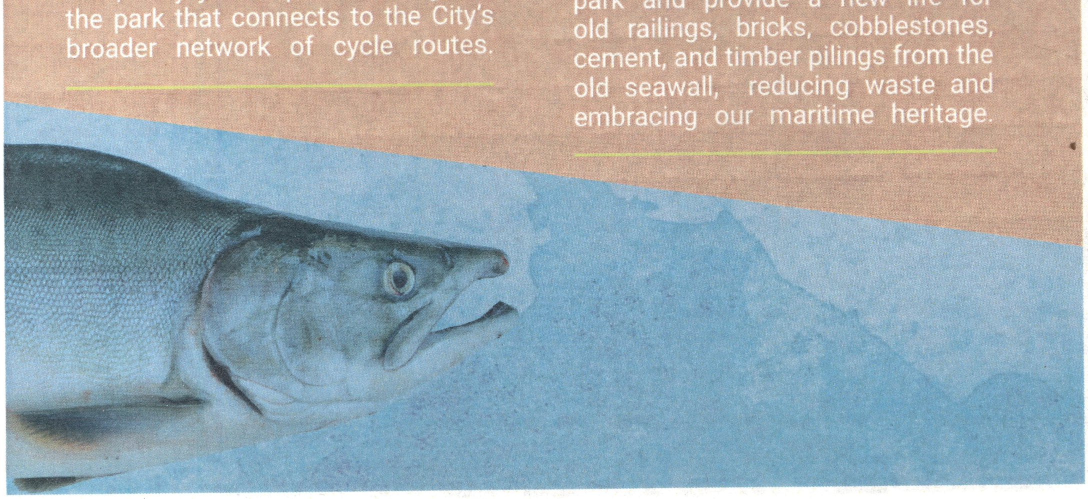
WATERFRONT FOR ALL. HABITAT FOR ALL.

Seattle's central waterfront is being transformed into a lush, public urban waterfront for all. Waterfront Seattle is designed with sustainability in mind, plants and trees, flexible public spaces, green infrastructure, and improved nearshore aquatic habitat will create a new green corridor along Elliott Bay. The waterfront will support the health and well being of plants, animals, pollinators, and humans now and into the future.

INCREASED ACCESS

A multi-modal transit system makes people-powered traveling more pleasant while helping to reduce emissions.

The new central waterfront will support multiple forms of transportation, including foot traffic, bike, car, freight, ferry, and bus. New stairways, elevators, and pedestrian bridges will make the waterfront more accessible. An elevated pedestrian bridge, Overlook Walk, will create a new connection from Pike Place Market's Marketfront to a pedestrian promenade that connects Pier 62/63 to the stadiums. Along the promenade, pedestrian crossings are designed to enhance the foot travel experience and increase safety. A remodeled ferry terminal, Colman Dock, will connect the waterfront to the islands with a new pedestrian bridge to 1st Avenue and an improved transit hub. Transit priority lanes on the redesigned Alaskan Way will expedite transit. A new dedicated bike path will offer cyclists of all ages and abilities a safe, enjoyable path throughout the park that connects to the City's broader network of cycle routes.



NATURE THERAPY

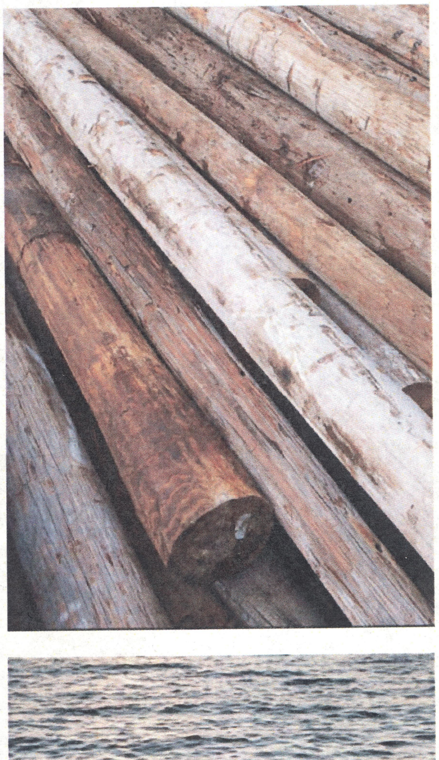
Green space supports human health and well being.

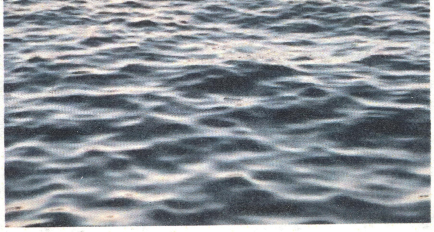
The term biophilia refers to a fundamental human need to connect with nature. Research has shown that spending time in nature can help lower stress levels, as well as encourage physical exercise. By drawing from biophilic design the future waterfront park will significantly increase the quality and access to nature, in order to support the wellbeing of people in Seattle's urban environment.

REUSING ELEMENTS

Material reuse reduces environmental impact.

Elements of the historic waterfront will be re-purposed as art, design details, and infrastructure. These "upcycled" materials will incorporate history into our new waterfront park and provide a new life for old railings, bricks, cobblestones, cement, and timber pilings from the old seawall, reducing waste and embracing our maritime heritage.





URBAN DENSITY

Inviting spaces in the city encourage urban density and sustainable practices.

The U.S. Census Bureau recently named Seattle the "fastest-growing city in the United States"[5]. As the city densifies Waterfront Seattle will be a model for sustainable growth. Hundreds of new trees added to Seattle's urban shoreline will create shade and retain moisture, mitigating the urban heat island effect, a phenomenon which causes temperatures to rise significantly in dense urban areas[4]. By creating access to nature and open space in the urban core this project will help to make our city livable.

MARINE HABITAT RESTORATION

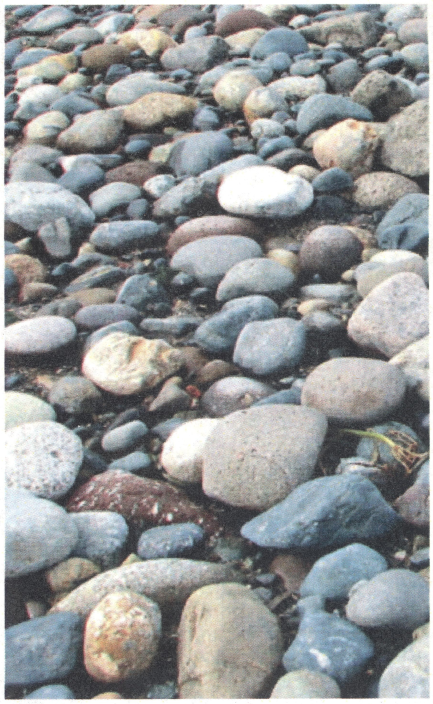
The future park will actively support marine life through restoration.

Salmon are an important part of our culture and economy. However, annual salmon populations are currently less than 10 percent of their precolonial levels[1]. The new Elliott Bay Seawall incorporates habitat features such as raised marine benches, textured walls, and habitat shelves. These features promote the growth of a healthy marine landscape, including algae and rockweed, nooks for shellfish and sea stars, and shallower water where salmon can rest. Juvenile salmon tend to swim close to shore and avoid dark waters under piers where predators lurk. They prefer consistent light as their eyes take 20 to 40 minutes to adjust to changes in brightness[2]. Glass bricks installed in the cantilevered section of the pedestrian promenade light the way on their shoreline-hugging migration route. Additionally, a new Habitat Beach will transform a section of our waterfront into a more natural state, with rocky slopes and native vegetation that foster biodiversity.

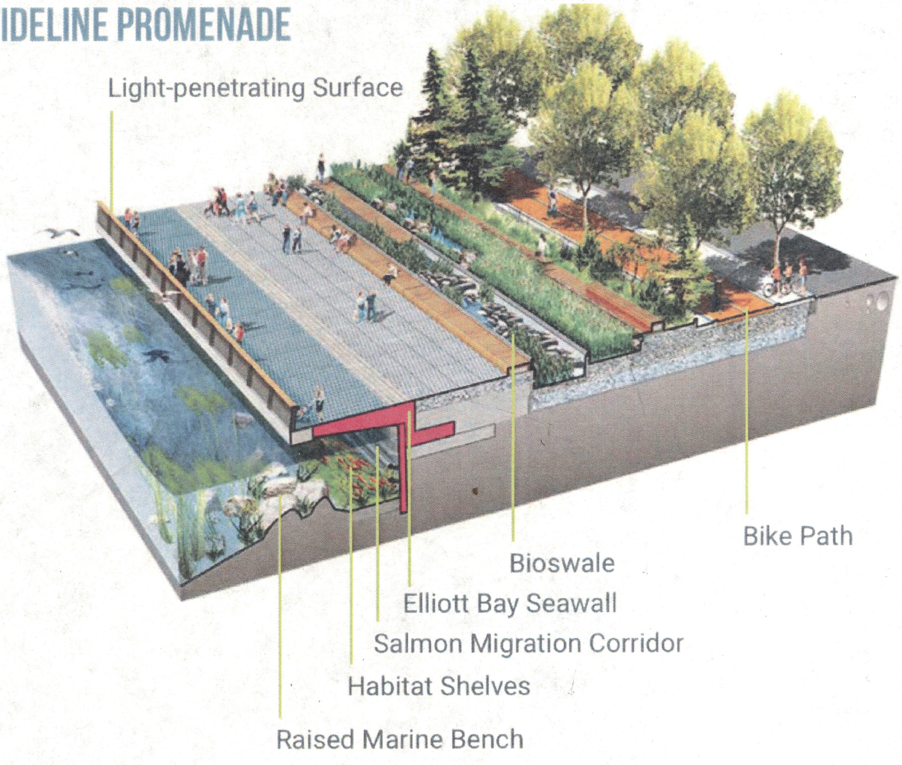
STORM WATER FILTRATION

Water will be filtered on its journey to Elliott Bay.

One of the biggest sources of pollution in Puget Sound is contaminated storm water runoff. In dense urban spaces, soil and vegetation are often paved over, forcing water to travel a long way, picking up dangerous pollutants and particles before flowing into Puget Sound. The Waterfront Seattle project design features multiple filtration methods, including enhanced soil pits for street trees, biofiltration swales, bioretention planters, and sub-surface wetlands. Together, these elements will catch water, filter pollutants and recharge the groundwater[5]. This filtration infrastructure will reduce the amount of water needed to irrigate plantings, lessen the risk of floods from heavy rain, and prevent polluted runoff from entering Puget Sound.



TIDELINE PROMENADE



> SUSTAINABLE DEVELOPMENT IS DEVELOPMENT THAT MEETS THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS.
>
> — GRO HARLEM BRUNDTLAND

friends
of WATERFRONT SEATTLE

List of Sources

1. Bottom, D. L., K. K. Jones, C. A. Simenstad, and C. L. Smith. 2009. Reconnecting social and ecological resilience in salmon ecosystems. Ecology and Society 14(1): 5. [online] URL: http://www.ecologyandsociety.org/vol14/iss1/art5/
2. Waterfront Seattle. "Sustainability Elements." N.d. Microsoft Word file.
3. Evans, Erv. "Tree Facts." NC Cooperative Extension. NCSU, n.d. Web. 23 July 2014. <http://www.ncsu.edu/project/treesofstrength/treefact.htm
4. "Heat Island Effect." United States Environmental Protection Agency. N.p., n.d. Web. 23 July 2014. <http://www.epa.gov/heatisland/>.
5. "Census: Seattle is the fastest-growing big city in the U.S." The Seattle Times. N.p., 22 May 2014. Web. 23 July 2014. <http://blogs.seattletimes.com/fyi-guy/2014/05/22/census-seattle-is-the-fastest-growing-big-city-in-the-u-s/>.
6. Bratman, Gregory N., et al. "The Impacts of Nature Experience on Human Cognitive Function and Mental Health." Annals of the New York Academy of Sciences, vol. 12491, no. 1, 2012, pp. 118–136.
7. Berman, Marc G, et al. "The Cognitive Benefits of Interacting With Nature." Psychological Science, vol. 19, no. 12, 2008, pp. 1207–1212.
8. Groenewegen, Peter P, et al. "Vitamin G: Effects of Green Space on Health, Well-Being, and Social Safety." BMC Public Health, vol. 6, 2006, p. 149.
9. Browning, W. D., C. O. Ryan, and J. O. Clancy. "Patterns of biophilic design." New York: Terrapin Bright Green, LLC (14).

PO Box 21272
SEATTLE, WA 98111
www.friendsofseattlewaterfront.org